

## **The Promise of Technology: Creating Enabling Environments**

Picture this situation: you just crashed your car, you haven't suffered any major injuries, but your car caught fire and you are trapped inside the wreckage. Luckily, a team of firefighters arrive just in time to save you. They use the Jaws of Life to cut off what's left of the door and one of them reaches inside to pull you out. After you've recovered from the shock you seek out the firefighter who saved you and thank him and when you shake his hand you notice that he has a prosthetic arm.

Although the situation I described is purely imaginary, it may soon become a reality. On the 9th of May 2014 the U.S. Food and Drug Administration approved marketing for the DEKA Arm System, an electronic prosthetic arm that can perform a variety of motions and is so precise that it can peel grapes.

The DEKA arm is just one of a range of new devices developed to help people with disabilities that range from devices that help paralyzed persons communicate to stair-climbing wheelchairs. While I am amazed by how much technology can do for the disabled and I hope that my grandchildren or my great-grandchildren will live in a world where the differences between the healthy and the disabled have disappeared, I believe that we have not yet answered a very important question regarding their welfare: How many people will be able to benefit from these technologies?

We must not forget that many of these devices are very expensive. For example, the cost of the DEKA arm may exceed \$100 000. Of course, in many developed countries some or all of the cost may be covered by private insurance or by government services like Medicaid in the U.S or the National Health Service in the UK.

Sadly, of the one billion people who live with disabilities, eighty percent live in undeveloped or developing countries, where public health services are either inexistent or underfunded and inefficient. On top of that, many of them face discrimination due to their disabilities. This attitude extends to employers, who often refuse to hire them, which leads to higher unemployment among people with disabilities. It is also known that twenty percent of the world's poorest people have some kind of disability and that the disability rate is higher for people who receive little or no education. When considering these factors it is painfully obvious that virtually all of the devices mentioned above are unattainable for the under privileged. If the current situation does not change soon, it will be as if these technologies have never been created.

To sum up, I think that we are in the process of finding ways to eliminate the disadvantages brought by disabilities. I also think that the next challenge on the road to equality between disabled individuals and their able-bodied counterparts will be making sure that the life-

changing technological breakthroughs of tomorrow will be available to all those who need them.